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ABSTRACT

Psychological theories about human motivation and accommodation to environment can be used to achieve a better understanding of the human factors that function in the work environment. Maslow's theory of human motivational behavior provided a theoretical framework for an empirically-derived method to predict job satisfaction and explore the hypothesis that, in the work environment, degrees of self-assessed job satisfactions vary with the strength of psychological needs satisfied. Federal government workers (N=472) in 29 different jobs completed a questionnaire designed to estimate job satisfaction from measures of need satisfaction. Results identified the strongest psychological needs as interesting duties, job security, and self-actualization, thereby lending support to the hypothesis. The findings suggest that this knowledge may be helpful for vocational counselors and employment-placement specialists. (The "Jobs and Attitudes Survey" instrument is included in the document.) (KMF)

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Predicting Job Satisfaction

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Predicting Job Satisfaction

Introduction :

"Far too often, unrealisitc and romanticized conceptions of job duties and responsibilities cause worker dissatisfaction.If an individual's needs for employment gratification differ greatly from what successful people in that occupation consider the principal psychological needs satisfied by their jobs, chances for job satisfaction are dim. Investigations have indicated that dissatisfied workers often become nonproductive, and they express their discontent through job absences, poor job safety records, grievances, and other forms of nonproductive job behaviors" (Blai, 1979)

About five decades ago psychologists, and other social scientists, began to emphasize the importance of achieving a better understanding of the human factors functioning in the work environment. Essential in reaching such understanding was the need for conceptual guideposts - the psychological theories (hypotheses) about human motivation and accomodation to environment which might serve to organize thought in this behavioral science area.

There have been many, many worker adjustment and job satisfaction studies. Few, however, focused upon a theoretical framework which could serve as a reference benchmark. The study described in this document sought to uncover experimental evidence to further strengthen the existing fragmentary evidence which currently supports Maslow's theory of human motivation. (Maslow, 1943). Maslow's theory derived, essentially, from his clinical studies and observations.

Specifically, Maslow's theory proposed that:

1- The primary structure of organization in human motivational life is the arrangement of both physiological and psychological needs in a hierarchy of lesser and greater priority, or intensity. Further - that under

conditions of equal deprivation, the prepotent needs are more urgent and insistent than the lesser prepotent needs.

2- In Maslow's view, the chief dynamic principal animating this hierarchy organization is the emergence of less prepotent needs upon gratification of the more prepotent ones. Additionally - until the prepotent ones are relatively satisfied, the others do not emerge as consistent behavior motivators.

(This concept of need satisfactions organized in a hierarchy of prepotency projects need gratification into a key role. In short - it releases the individual from domination of a relatively more physiological need, permitting the emergence of more socially-oriented goals.)

3- When chronically satisfied, the physiological needs cease to exist as active determinants or behavior organizers. A want that is satisfied is no longer a want: the individual's behavior is triggered and organized only by unsatisfied needs. If hunger is satisfied it becomes of no importance in the current dynamics of the individual's motivational 'drives'.

4- The 14 basic needs proposed by Maslow include : Job security; Good pay; Competition; Esteem; Leadership; Dependence; Social science; Self-actualization; Power; Congeniality; Advancement; Independence; and Interesting duties.

5- The integrated wholeness of the individual must be one of the foundation stones of motivational theory.

6- The situation, or field in which the individual reacts must be taken into account, but the field alone can rarely serve as an exclusive explanation for behavior. Furthermore, the field itself must be interpreted in terms of the individual Field theory cannot be a substitute for motivational theory.

7- Motivational theory is not synonymous with behavior theory. The The motivators are only one class of behavior determinant, while behavior is almost always motivated, it is also always biologically and situationally determined as well." (Blai, Summer 1964)

Maslow's theory of human motivational behavior is equally significant when questions of worker job adjustment (i.e. needs satisfaction) are posed. As Dr Anna Roe has indicated: "There is no single situation which is potentially so capable of giving some satisfaction at all levels of basic needs as is the occupation". Roe goes on to note that ... "occupations as a source of need satisfaction are of extreme importance in our culture.

"It may be that occupations have been so important in our culture just because so many needs are so well satisfied by them. Whether the relation is causal or not, and if so, which is cause and which is effect, does not particularly matter. It is probably a sort of feedback arfangement anyway. What is important is that the relationship exists and is an essential aspect of the value of the occupation to the individual." (Roe, 1956)

The purpose of the study described in this document ... "to examine Maslow's proposed hierarchy of motivation, as discussed in (Maslow,1943) and to evaluate the suitability of a questionnaire designed to estimate job satisfaction from measures of need satisfaction." (Blai, 1962)

"The 14 pre-selected needs in the questionnaire ranged over Maslow's eight basic groups of needs: they were selected from the extensive lists of needs proposed by Center (1948) and Murray (1938). The questionnaire measured degrees of satisfaction of these needs and the individual's self-evaluated degree fo job satisfaction". (Blai, 1964)

Specifically, this investigation sought to develop a simple, easily-scored questionnaire, (see pp12-18, this document) to measure degrees of job

satisfaction. The basic hypothesis upon which this questionnaire was designed was the proposition that in the work environment, degrees of self-assessed job satisfactions vary with the strength of psychological needs satisfied - the stronger the felt needs satisfaction, the greater the degree of felt job satisfaction.

Literature Review:

Few studies concerning themselves with theoretical implications relating to psychological needs satisfaction and self-assessed degrees of job satisfaction were disclosed in a systematic review of the literature. Most of the studies limited themselves to generalizations relating to the perceived importance, or unimportance, of wages, advancement, job security, personal treatment, and the like; without reference to motivational theory. It was apparent, however, that there must be an adequate motivational theory to permit the ordering of the tremendous mass of data which has been collected in the broad field of industrial morale; i.e. worker job satisfaction.

A handfull of studies addressed themselves to theoretical implications. The consensus of their collective judgements suggests the existence of a direct association between fulfillment of psychological needs and self-assessed levels of job satisfaction. On the other hand, since most of these were occupationally confined to but a few job categories, these offer but fragmentary evidence supporting Maslow's theory of motivation.

Method:

Data was obtained from 472 workers employed by the federal government distributed among 29 different kinds of jobs within 5 broad occupational groups. These included:

Respondents	Occupations
89	Professional = 8*
101	Management-Official = 3
155	Clerical = 3
45	Service = 2
82	Trades-Manual = 12

* Number of different kinds of jobs.

Two variables were measured by the questionnaire instrument:

1- expressed degrees of psychological needs satisfactions from among a pre-selected psychological needs listing, and

2- self-evaluated degrees of job satisfaction as reflected by a 7-factor Likert-type scale.

In 5 of the 6 questionnaire items the respondents specified from among the 14 pre-selected psychological needs, the 3 they considered most desirable, satisfying or important. To minimize the liklihood of 'top-of-the-list' position influencing the answers given, the order of needs listing was randomized among the 5 questions asked.

"Each respondent therefore had 15 opportunities to select and rank-order any of these 14 needs among the 3 they considered to be of greatest importance. From these responses; i.e. the number of times a need was selected, and the rank-order of the selections, measures were obtained for varying degrees of psychological need strengths among these 472 individuals." (Blai, 1963)

Number scores ranging from 1 through 7 were assigned to their responses regarding self-assessed levels of job satisfaction; i.e. "hate it" responses = 1; "like it extremely well" responses = 7.

Each time a given psycholigcal need was selected, it was assigned a numerical value of 1. To this was added the numerical score reflecting the rank-order of the selection . Since a first rank assignment represented the

greatest degree of importance, a point-value of 3 was given to #1 rankings. Conversely, since a third rank assignment represented the least degree of importance among the three selected it was given a point-value of 1. A composite score was computed by adding both the number of times a need was selected and the numerical value of its rank-order assignment.

It is also noted that the intervals between ranks, as well as the intervals in the designed 7-point/job satisfaction scale, were not necessarily equal. Since, however, no other valid assumption could be made, equal unit values were assigned to each of these intervals. It should be further noted that this study did not consider:

1- whether the 14 pre-selected psychological needs were equal in strengthás motivating elements, nor

2- did it concern itself with other characteristics of the subjects.

Essentially, this inquiry investigated the varying degrees of importance attached to the 14 pre-selected psychological needs as they related to levels of job satisfaction among employed individuals. The study was also limited to a consideration of a 472 givernment employees sample working in 29 different kinds of civilian jobs.

Results:

Among the 5 major occupational groups, differences were noted both in the different psychological needs selected, and the relative levels of importance assigned to the various needs selected. The latter was expressed as percentages of the total number of times that each need could have been selected;/ For example - as Table 1 reveals, the need "Self-actualization" was selected 70% by Professional respondents; 58% by Managerial-Official, and 36% by the Clerical employees; however, it was not at all selected by either the Service or Trades-Manual respondents. Obviously, if chance alone governed these selections, they would have been distributed equally among all 14 needs

i.e. 15 opportunities (3 selections in 5 questions)

listed. Scanning Table 1, it is quite apparent that the great variations evident are the result of something other than chance being operative.

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insert Table 1 about here

Within the previously-noted limitation of this study, the following conclusions appear to be warrented:

1- As Table 1 reveals, overall - without reference to individual occupational grouping - the strongest psychological needs, (as reflected by frequency of selection) among the 5 major occupational groups included, were:

a) Interesting duties = 218%

b) Job security = 194%

c) Self-actualization = 164%

2- Three of the five questions concerning psychological needs as motivators for perceived job satisfaction did not relate to the jobs held by the subjects at the time they answered the qurstionnaire. Therefore, the selections made by them were not wholly dependent upon the jobs held at the time. However, as Table 1 reveals, with one minor exception, (Clerical group selected "Job security" rather than "Advancement"), the same three needs were selected most frequently among all respondents:

a) Interesting dutires = 218%

b) Job security = 194

c) Self-actualization = 164&

It therefore appears reasonable to conclude that from among the 14 listed needs these three were the major components contributing to job satisfaction.

The data collected were also analyzed in connection with the second hypothesis in this study; i.e. that job satisfaction is associated with the

TABLE 1

Strongest 3 Needs Selected: By Occupations

Maslow Needs	A	B	C	D	E	Total %
Self-actualization	70 *	38	36			164
Interesting Duties	70	54	60	34		218
Advancement	39	33			71	143
Job Security			53	70	71	194
Independence				41		41
Esteem					36	36
Congeniality					34	34

* ALL percentages

A= Professional; B= Managerial-Official; C= Clerical;
D = Service; E= Trades-Manual

extent to which human psychological needs are satisfied by work performance; the greater the psychological needs satisfaction , the greater the perceived level of job satisfaction. The questionnaire instrument and technique were designed to permit estimation (prediction) of worker job satisfaction, (i.e. worker job adjustment), from measures of psychological needs satisfactions.

"Many techniques exist for the measurement of needs satisfaction. One broad category includes free association and projective techniques such as the Thematic Apperception Test and the Rorschach. Another approach, more structured, consist of listing and defining a number of needs or need areas, and then having them ranked in terms of their perceived importance. The latter method was selected for use in this inquiry since definite consideration was given to developing a procedure which could be widely used without requiring highly specialized training for the administration of the instrument." (Blai, 1962)

A Pearson product-moment correlation ("r") was computed for the job satisfaction scores and the psycholigcal needs satisfaction scores. This particular computation was selected since it indicates the extent to which changes in the one variable are accompanied by, or dependent upon, changes in the second variable. The Pearson r = +.58, evidencing a substantial, positive correlation. This suggests that this questionnaire instrument has marked construct validity and predictive value in estimating extent of worker job satisfaction from measures of psychological needs satisfactions.

Of the 14 psycholigical needs listed, nine were considered to 'match' or closely approximate the heirarchial needs specified by Maslow (Maslow, 1943). The five additional needs appearing in the questionnaire were included because it was conjectured that these might be considered important to these subjects. These are: Outdoor work; Dependence; Power; Social service; Competition. The 14 needs, listed alphabetically, with a brief description of each, follows:

1. Advancement:
The need to achieve; be successful; do things better than others.

2. Competition:
The need to pit one's efforts directly against someone else in striving for a common goal.

3. Congeniality:
The need for belongingness and affection; satisfactory interpersonal relationships or a place in one's selected group(s).

4. Dependence:
The need for deference; getting suggestions from others; following the instructions and leadership of others.

5. Esteem:
The need for favorable, well-reinforced evaluation of oneself.

6. Independence:
The need for autonomy. Freedom to make decisions, independently, avoiding situations in which one is expected to conform.

7. Interesting Experience:
The need to find one's daily activities stimulating and worthwhile.

8. Leadership:
The need for leading others through persuading them to do what one wants.

9. Outdoor Work:
The need for activity; the natural exercise of the body and mind.

10. Power:
The need to dominate others; be the boss.

11. Profit:
The need for considerable earnings to help insure freedom from want.

12. Security:
The need for economic stability evident in the common preference for job security.

13. Self-actualization:
The need for self-fulfillment. Striving to be what one believes oneself capable of being.

14. Social Service:
The need for nurturance; to help others, particularly those in less fortunate circumstances.

For the purposes of this study, a 'need' is defined as a hypothetical force within the organism which promotes activity. Succinctly stated by Murray: "Between what we can directly observe - the stimulus and the resulting action - a need is an invisable link, which may be imagined to have the properties that an understanding of the observed phenomenon demand . 'Need' is, therefore, a hypothetical concept." (Murray, 1928)

As Table 2 reveals, the selections percentages for each of the nine Maslow-matched needs are clearly in very close harmony with Maslow's motivation. The lesser prepotent needs of Self-actualization, Advancement, Interesting Duties, and Leadership were all selected in greater amounts, beginning with the Trades-Manual group and progressing to the Professional group. Conversely, the more prepotent needs of Independence, Respect, Money Security, and Congeniality and Job Security were all selected in greater amounts beginning with the lower socioeconomic groups; Trades & Services, and decreasing to the least amounts among the Managerial and Professional occupations.

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insert Table 2 about here

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Using Findings:

How might the clearly evident differences in needs selections and relative 'strengths' of needs among the various occupational groups be effectively utilized in vocational guidance? For example - assume an individual completes the questionnaire. The psychological needs profile of the individual's

TABLE 2

Total Needs Selections: By Occupations

Needs	A	B	C	D	E
Most Prepotent					
Job Security	71*	70	53	27	11
Money Security	24	20	22	19	8
Congeniality	34	30	33	21	16
Respect	36	24	14	7	13
Independence	25	41	14	19	26
Least Prepotent					
Leadership	5	6	8	19	13
Interest'g Duty	33	34	60	54	70
Advancement	19	13	24	33	39
Self-Act'lzat'n	19	18	36	58	70

* ALL percentages

A= Trades-Manual; B = Service; C= Clerical;
D= Managerial-Official; E= Professional

selections indicates that the 3 strongest psychological needs satisfiers among those in professional occupations; i.e. Self-actualization; Interesting duties; and Advancement, are considered to be of very minor importance to this individual. Assume further, that this person in discussing personal vocational plans, expresses a strong desire to prepare for a professional-type position. This non-compatability in psychological needs preference might well suggest to this individual that potential difficulties lie ahead. From the practical viewpoint of : (1) future adjustment to, (2) anticipated satisfaction in professional-type positions, such data-based knowledge could be vitally significant in helping this person reach a realistic, non-glamorized vocational selection decision.

Interest inventories, as they pertain to vocational planning, provide measures relating only to the respondent's pattern of interest selection preferences in relation to the particular collective-judgement interest pattern of those employed in the particular occupation or groups of occupations. On the other hand, assessing varying degress of strength of psychological needs satisfactions, and then profiling one's own patterns, (as described in this study), might additionally make possible a fuller understanding of what one might reasonably expect to find in various occupations, thus permitting one to reach more realistic vocational decisions and choices.

To advise an individual that he/she has a high clerical interest score is indeed useful information for that person. However, to be able to definitively explore with him/her the psychological needs satisfaction profiles of various occupations, as assessed by satisfied individuals working in those fields, suggest an additional valuable dimension of knowledge which could materially assist the individual in reaching and intelligent choice.

In summary then - relating the self-selected psychological needs preferences of an individual to the normatively-established needs profiles of various lines of work suggests a counseling technique of unique, practical value.

Implications for further research:

In this study, no attempt was made to examine over an extended period of time the stability of the psychological needs profiles ascertained. For this questionnaire to have practical value as a predictive vocational counseling device, it is essential that any errors in these profile norms due to passage of time be negligible; i.e. its reliability dimension. Therefore, further research along these lines is indicated. Additionally, before this instrument can beneficially be utilized in both vocational counseling and/or personnel selection-placement activities, psychological need satisfaction profiles must be established for specific individual jobs.

Needs Profile Questionnaire:

"Jobs and Attitudes Survey

Survey Purpose

1. This is a scientific survey to determine why people go into different kinds of work/

2. This type of information will be very helpful to young people trying to decide what kinds of work to enter.

3. There are no "RIGHT" or "WRONG" answers in this survey. You are simply asked to give your own ideas.

4. All of the information collected will be kept absolutely confidential. You will not sign the questionnaire, nor will you in any manner or at

any time be identified with the answers to these questions. Your statements, and those of hundreds of others who are cooperating in this survey, will be combined.

5. When this survey is completed free copies of a report listing the results will be available to you in the Industrial Relations (Personnel) offices.

6. May we add a word of sincere thanks for your assistance, for without your cooperation this survey could not be made.

The following general information is needed for all those cooperating in this survey.

1. Present Job Title_____

2. Present Salary Range (Check ONE only)

$2,000 - 2,999 __	
3,000 - 3,999 __	$7,000 - 7,999 __
4,000 - 4,999 __	8,000 - 8,999 __
5,000 - 5,999 __	9,000 - 9,999 __
6,000 - 6,999	10,000 - 10,999 __
	11,000 - 11,999 __

3. Length of time in present job: __years.

4. Please circle the highest grade completed in school/college.

6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16

5. Male __ Female __

6. Your age group (Check ONE only)

20 to 25 __	40 to 50 __
25 to 30 __	50 to 60 __
30 to 40 __	60 to 70 __

7. Your father's main occupation _____ _____

Please read the following instructions carefully , and remember - there are no "Right" or "Wrong" answers to these questions.

1. What do you find MOST SATISFYING in your present job? Select from among the following list the 3 things you like most about your job. In the spaces provided, place a number 1 next to the one you like most; a number 2 next to your 2nd choic and a number 3 next to your 3rd choice. Please be certain to make 3 selections.

A. _ Enjoyable, outdoor work.

B . _ Chance to be a leader.

C. _ Being looked upon very highly.

D. _ Being well paid.

E. _ Security of steady job.

F. _ Not having to make decisions.

G. _ Opportunities to use my abilities fully.

H. _ Telling other people what to do on the job.

I. _ Helping others.

J. _ Working with people I like.

K. _ Interesting job futies.

L. _ Freedom from too close supervision.

M. _ Opportunity for advancement.

N. _ Opportunity for competition.

2. If you had COMPLETE FREEDOM OF CHOICE, which of the following would you choose? In the spaces provided, place a number 1 next to your first choice, a number 2 next to your 2nd choice; a number 3 next to your 3rd choice. Please be sure to make 3 selections.

A. _ A job working mostly on your own.

B. _ A job being with people you like.

C. _ A job having very good chances for advancement.

D. _ A job doing healthy, outdoor work.

E. A job having good chances to compete with others.

F. _ A job with very interesting duties.

G. _ A job where you would be boss.

H. _ A job using your full abilities.

I. _ A job in which you would be a leader.

J. _ A job where you would be looked up to by your fellow workers.

K. A job with good pay.

L. _A job where you would follow instructions and not decide what to do.

M. A job in which you would be absolutely certain of no lay-offs.

N. A job helping other people.

3. Which of the following DID YOU CONSIDER in accepting your present job? Please select from the following the 3 most important reasons. In the spaces provided, place a number 1 next to your 1st choice; a number 2 next to your 2nd choice; a number 3 next to your 3rd choice. Please make 3 selections.

A. _ Stimulating opportunities for competition with others.

B. _ Very good possibilities for advancement.

C. _ Being sure my job will continue.

D. _ Being able to work independently with little supervision.

E. _ Working outdoors in pleasant surroundings.

F. _ Being the person who orders others to do jobs.

G. _ Being able to help others.

H. _ The chance to be a leader.

I. _ Following instructions, letting other make job decisions.

J. _ Excellent opportunity to fully urilize my skills.

K. _ Making a great deal of money.

L. _ Being thought highly of among those with whom I work.

M. _ The pleasure of working with people I like.

N. _ Enjoying job duties which are very interesting.

4. What are the most satisfying things you would want IN ANY JOB you selected? Please select from the following the 3 most important to you. In the spaces provided, place a number 1 next to your first choice; a number two next to your 2nd choice, and a number 3 next to your 3rd choice. Please make certain you select 3.

A. _ A job, the duties of which make it very interesting.

B. _ A job in which I am held in very high regard by others.

C. _ A job earning good pay.

D. _ A job working in the healthy outdoors.

E. _ A job which is steady with no lay-offs.

F. A job with very little close supervision.

G. A job having keen competitionwith others.

H. _ A job with good advancement opportunities.

I. A job being with people I enjoy.

J. A job in which I do not make decisions, but do what I am told.

K. _ A job with a good chance to make full use of my skills and abilities.

L. _ A job in which I give the orders.

M. _ A job with leadership responsibilities.

N. A job in which I am helping others.

5. WHETHER OR NOT YOU FIND THEM IN YOUR PRESENT JOB, what do you consider to be the 3 things most important to job satisfaction in jobs of the kind you

are now in? Please select from the following the 3 most important to you. In the spaces provided, place a number 1 next to your 1st choice; a number 2 next to your second choice, and a number 3 next to your 3rd choice. Please be sure to select 3.

A. _ Being the top man; directing others.

B. _ Chance to directly assist others.

C. _ Putting my qualifications to full use.

D. _ Very good advancement opportunities.

E. _ Being free from close supervision.

F. _ Healthy, outdoor work.

G. _ Enjoyable competition with others.

H. _ Being happy among friendly people.

I. _ Carrying out instructions, others deciding what's to be done.

J. _ Knowing I have a steady, secure job.

K. _ Very good pay; better than most.

L. Very interesting job duties.

M. _ Excellent prospects of being a leader.

N. Being looked up to in my job.

6. Please indicate your general, overall feeling about YOUR PRESENT JOB by checking one of the following. (Please do not consider only how you feel today, but also how you have usually felt about your job in the past.)

Do you USUALLY (check one only)

1) _ Hate it?

2) _ Dislike it very much?

3) _ Dislike it somewhat?

4) _ Neither like or dislike it?

5) _ Like it somewhat?

6) _ Like it very much?

7) _ Like it extremely well?

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